REMARKS

Applicant respectfully requests reconsideration of the present application in view of the reasons that follow.

Claims 1-10 remain pending in this application.

Claim Rejections under 35 U.S.C. § 103

Claims 1, 4, 5, 7, 8 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art ("AAPA") in view of U.S. Patent No. 6,947,758 ("Nguyen"). Claims 2, 3 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view Nguyen in further view of U.S. Patent No. 6,148,200 ("Lahtinen"). Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view Nguyen in further view of U.S. Patent No. 6,039,624 ("Holmes"). In response, Applicant traverses the rejection for the reasons set forth below.

Applicant relies on MPEP § 2143.03, which requires that all words in a claim must be considered in judging the patentability of that claim against the prior art. Here, the cited references do not identically disclose, teach or suggest all the claim limitations. *See In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Independent claim 1 is directed to a "method for assigning a mobile subscriber roaming number to a mobile subscriber" comprising, in addition to other steps, "when the mobile subscriber is called, *the Visitor Location Register includes a plurality of Visitor Location Register modules which manage different mobile subscriber roaming numbers respectively*" (emphasis added). Independent claim 7 recites similar limitations.

In contrast, Nguyen (*See* Fig. 7) discloses that VLR 740 comprises a first VLR unit VLR-1 750, a second VLR unit VLR-2 760, and an Mth VLR unit VLR-M 770. MSC 400 assigns a TMSI number to each telephone number. MSC 400 assigns a first telephone number with TMSI-1 715. MSC 400 continues the process and assigns the Nth telephone number with TMSI-N 715. MSC 400 embeds address information of a processing element

(i.e. an address of a VLR site in one of the VLR units) into the TMSI number. *See* Col. 10, lines 7-14 and lines 32-44, and Fig. 7.

However, Nguyen does not disclose "a plurality of Visitor Location Register modules which manage different mobile subscriber roaming numbers respectively," as claimed in independent claim 1.

"TMSI-Q, TMSI-R, TMSI-N" in Nguyen are different from the "VLR module number" claimed in claim 1. The VLR module number is a module number of a VLR module which receives a request for MSRN. However in Nguyen, the TMSI numbers TMSI-1, TMSI-2,..., TMSI-N are assigned to N telephone numbers respectively, and the TMSI numbers TMSI-1 through TMSI-Q, the TMSI numbers TMSI-(Q+1) through TMSI-R,..., and the TMSI numbers TMSI-(R+1) through TMSI-N are assigned to the first VLR unit, the second VLR unit,..., the Mth VLR unit. Thus, it is clear that TMSI-Q, TMSI-R, TMSI-N are the TMSI numbers, not the module number of the VLR module.

In Nguyen, the determination of the VLR module number is implemented by fragmentation, as shown in the following table derived from Col. 10, line 45 to Col. 11, line 14:

	VLR-1 750	VLR-2 760	VLR-3 770
Lower Limit of TMSI	TMSI-1	TMSI-Q+1	TMSI-R+1
Upper Limit of TMSI	TMSI-Q	TMSI-R	TMSI-N

Thus, the MSC obtains the VLR module number by determining in which fragment the TMSI number is contained and then determining the VLR module.

In contrast, the methods claimed in claims 1 and 7 require that the VLR module number is contained in the MSRN, i.e., MSRN = CC + MSC number + VLR module number + MSRN information table record number. Thus, the VLR module number can be obtained by decomposing the MSRN directly. Using the method claimed in claims 1 and 7, the problem in the MSRN's centralized management and simple fragmentation management is eliminated, efficiency is improved and smooth capacity expansion can be realized.

Accordingly, AAPA in combination with Nguyen fails to disclose, teach or suggest each and every limitation of independent claims 1 and 7.

Further, neither AAPA nor Nguyen suggest that it would be appropriate to modify AAPA by Nguyen. Furthermore, it would not have been obvious to one skilled in the art to make such a combination. TMSI in Nguyen and MSRN as claimed are two different parameters which have different definitions and functions. The definitions of TMSI and MSRN can be found in the ETSI TS23.003 protocol. TMSI is used for wireless interfaces and is a temporary subscriber identity instead of IMSI. In contrast, MSRN is used for interfaces between MSCs and replaces MSISDN for routing. Thus, TMSI and MSRN are different subscriber identities and used for different situations. Accordingly, for at least this reason, the rejection as to claims 1 and 7, concerning AAPA and Nguyen, should be withdrawn.

When determining whether a claim is obvious, an examiner must make "a searching comparison of the claimed invention – *including all its limitations* – with the teaching of the prior art." *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis added). Thus, "obviousness requires a suggestion of all limitations in a claim." *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (*citing In re Royka*, 490 F.2d 981, 985 (CCPA 1974)). Moreover, as the Supreme Court recently stated, "*there must be some articulated reasoning* with some rational underpinning to support the legal conclusion of obviousness." *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (quoting In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006) (emphasis added)). Here, the cited references fail to disclose each and every limitation in as complete detail as is contained in independent claims 1 and 7.

Claims 2-6 and 8-10 depend from one of independent claims 1 or 7 and should be allowed for the reasons set forth above without regard to further patentable limitations contained therein. Further, Lahtinen and/or Holmes fail to cure the deficiencies of AAPA and Nguyen.

For example, concerning claim 2, in Lahtinen, "NDC" in col. 3, line 41 refers to the destination code, but not "the number of the Mobile Switching Center where said mobile subscriber is in" as claimed in claim 2. Moreover, the concepts of "LVLR" in Lahtinen and "VLR module" in the present claims are different. In Lahtinen, LVLR means "Logical Visitor Location Register" and indicates the current location information of the mobile station, but not the information of the VLR module. The information of LVLR should be stored in a HLR which provides the information to the VLR in a "Provide Roaming Number" message. When the VLR does not know the location of the mobile station, the information can be used to get the current location area of the mobile station so as to page the mobile station. But in the present claims, a VLR module is one service processing element of a VLR with multiple modules, which is allocated based on physical configuration. The VLR module number is provided in the MSRN by the VLR and is not stored in the HLR. In addition, Lahtinen does not disclose that MSRN includes the VLR module number, and the LVLR number only appears in GT encoding of the VLR instead of MSRN. Accordingly, for at least this additional reason, Applicant requests reconsideration and that claim 2 be allowed.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for

such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date: __1/29/09__   By _____

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